

IN THE CLAIMS:

Please amend claim 46 as follows. A complete listing of all the claims appears below; this listing replaces all earlier amendments and listings of the claims.

1. - 45. (Canceled)

46. (Currently Amended) A triphasic prosthetic device for repairing or replacing cartilage or cartilage like-tissue (1) comprising:

a polymeric hollow body component (3) with a number of highly oriented hollow bodies;

a base component (4) comprising a bone substitute material that is a synthetic ceramic to anchor said polymeric hollow body component (3) in or onto an osteochondral environment; and

at least one superficial layer comprising randomly oriented fibres (2) provided on said polymeric hollow body component (3)

wherein more than 50% of said number of highly oriented hollow bodies of the polymeric hollow body component (3) are aligned ~~perpendicularly to a plane of an articulating surface of the base component (4).~~ essentially parallel to the insertion axis of the prosthetic device (1).

47. (Previously Presented) The device according to claim 46, wherein more than 90% of said hollow bodies are aligned perpendicular to the plane of the articulating surface.

48. (Previously Presented) The device according to claim 46, wherein an inner channel diameter of the hollow bodies of polymeric hollow body component (3) is in a range of 500 nm to 500 μm .

49. (Previously Presented) The device according to claim 48, wherein said inner channel diameter is in a range of 5 μm to 150 μm .

50. (Previously Presented) The device according to claim 46, wherein the polymeric hollow body component (3) is formed by an assembly of oriented tubes.

51. (Previously Presented) The device according to claim 50, wherein a space between the assembled tubes is empty or filled with a substance selected from the group consisting of synthetic polymers, natural polymers, biologically engineered polymers, molecules thereof, biomacromolecules and any combination thereof.

52. (Previously Presented) The device according to claim 48, wherein the inner channels have a wall thickness ranging between 1 nm and 500 μm .

53. (Previously Presented) The device according to claim 52, wherein the wall thickness is between 100 nm and 250 μm .

54. (Previously Presented) The device according to claim 46, wherein the hollow body component is a solid block of polymer with channels.

55. (Previously Presented) The device according to claim 54, wherein the channels are formed by at least one of mechanical, physical and chemical methods in a solid polymer.

56. (Previously Presented) The device according to claim 55, wherein said solid polymer is porous.

57. (Previously Presented) The device according to claim 46, wherein lateral distribution of the hollow bodies of component (3) is homogenous, random or in a specific pattern.

58. (Previously Presented) The device according to claim 46, wherein said hollow bodies of the hollow body component (3) have a height of 50 μm to 10 mm.

59. (Previously Presented) The device according to claim 58, wherein the height is between 100 μm and 2 mm.

60. - 64. (Canceled)

65. (Previously Presented) The device according to claim 46, wherein said synthetic ceramic comprises at least one of calcium phosphate, calcium sulfate and calcium carbonate.

66. (Previously Presented) The device according to claim 65, wherein said calcium phosphate is selected from the group consisting of dicalcium phosphate dihydrate ($\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$), dicalcium phosphate (CaHPO_4), alpha-tricalcium phosphate (alpha- $\text{Ca}_3(\text{PO}_4)_2$), beta-tricalcium phosphate (beta- $\text{Ca}_3(\text{PO}_4)_2$), calcium deficient hydroxyl apatite ($\text{Ca}_9(\text{PO}_4)_5(\text{HPO}_4)\text{OH}$), hydroxyl apatite ($\text{Ca}_9(\text{PO}_4)_6\text{OH}_2$), carbonated apatite ($\text{Ca}_{10}(\text{PO}_4)_3(\text{CO}_3)_3(\text{OH})_2$), fluoroapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{F},\text{OH})_2$), chloroapatite ($\text{Ca}_{10}(\text{PO}_4)_6(\text{Cl},\text{OH})_2$), whitlockite ($(\text{Ca},\text{Mg})_3(\text{PO}_4)_2$), tetracalcium phosphate ($\text{Ca}_4(\text{PO}_4)_2\text{O}$), oxyapatite ($\text{Ca}_{10}(\text{PO}_4)_6\text{O}$), beta-calcium pyrophosphate (beta- $\text{Ca}_2(\text{P}_2\text{O}_7)$), alpha-calcium pyrophosphate, gamma-calcium pyrophosphate, octacalcium phosphate ($\text{Ca}_8\text{H}_2(\text{PO}_4)_6 \times 5\text{H}_2\text{O}$) and mixtures thereof.

67. (Previously Presented) The device according to claim 46, wherein said synthetic ceramic comprises at least one of metallic, semimetallic components and non-metallic components, preferably magnesium, silicon, sodium, potassium, strontium and lithium.

68. (Previously Presented) The device according to claim 46, wherein the material is a composite material comprising at least two different components.

69. (Previously Presented) The device according to claim 46, wherein more than 95% of said hollow bodies are aligned perpendicular to the plane of the articulating surface.

70. (Previously Presented) The device according to claim 46, wherein the shape of the base component (4) is round cylindrical or conical.

71. (Previously Presented) The device according to claim 70, wherein the diameter of the base component (4) ranges between 4 and 20 mm, with a height being 1 to 30 mm.

72. (Previously Presented) The device according to claim 71, wherein the diameter of the base component (4) ranges between 4 and 20 mm, with a height being between 1 to 10 mm.

73. (Previously Presented) The device according to claim 46, wherein said superficial layer (2) has a thickness of 1 nm to 5 mm.

74. (Previously Presented) The device according to claim 73, wherein said thickness is in the range of 10 μ m to 2 mm.

75. (Previously Presented) The device according to claim 72, wherein said superficial layer (2) is missing, or formed by uppermost end of the hollow body component.

76. (Previously Presented) The device according to claim 46, wherein at least one of the randomly oriented fibers (2), the polymeric hollow body component (3) and the base component (4) has a liquid absorbing capacity in a range of 0.1% to 99.9%.

77. (Previously Presented) The device according to claim 76, wherein said liquid absorbing capacity is in a range of 20.0 to 95.0%.

78. (Previously Presented) The device according to claim 76, wherein the liquid is at least one of an aqueous media and a body fluid.

79. (Previously Presented) The device according to claim 46, wherein the polymeric hollow body component is cross-linked.

80. (Previously Presented) The device according to claim 46, further comprising at least one externally added component.

81. (Previously Presented) The device according to claim 80, wherein said externally added components are cells of different origin.

82. (Previously Presented) The device according to claim 81, wherein said cells are at least one of autologous cells, allogeneous cells, xenogeneous cells, transfected cells and genetically engineered cells.

83. (Previously Presented) The device according to claim 80, wherein chondrocytes, chondral progenitor cells, pluripotent cells, totipotent cells or combinations thereof are present throughout at least one of the randomly oriented fibers (2) and the polymeric hollow body component (3).

84. (Previously Presented) The device according to claim 80, wherein osteoplasts, osteo-progenitor cells, pluripotent stem cells, totipotent stem cells or combinations thereof are present throughout the base component (4).

85. (Previously Presented) The device according to claim 80, wherein blood or any fraction thereof is present throughout the base component (4).

86. (Previously Presented) The device according to claim 80, wherein pharmaceutical compounds are contained.

87. (Previously Presented) A device according to claim 46, wherein a cell barrier layer is additionally provided between said polymeric hollow body component (3) and said base component (4).

88. (Previously Presented) A device according to claim 87, wherein the cell barrier layer is a cell selective barrier layer.

89. (Previously Presented) A use of the device according to claim 46 for implantation in articulating joints in humans and animals.

90. (Previously Presented) The use according to claim 89 for regeneration of articular cartilaginous tissue.